



426627



Hank Mittelhauser  
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To: STEVEN FARYAN, ben.maradkel cc: "Ron St. John"  
Subject: Analytical results from Columbia Analytical

07/08/2003 01:34 PM

Earlier I sent the latest results from Columbia Analytical. The sample identification protocol is as follows:

All samples have the prefix VPGAC - this stands for Vapor Phase Granulated Carbon.

The prefix is followed by 01, 02 or 03. 01 indicates the sample was taken before the first carbon unit. 02 indicates the sample was taken between the first and second carbon units. 03 indicates the sample was taken after the last carbon unit.

Finally, the date is provided as the last part of the sample number.

For instance, the sample identified as VPGAC01/061703 was a sample taken on June 17, 2003 before the first carbon unit.

# COLUMBIA ANALYTICAL SERVICES, INC.

## RESULTS OF ANALYSIS

Page 1 of 3

**Client:** Clayton Group Services

**Client Sample ID:** VPGAC01/061703

**Client Project ID:** Lockformer/65263

*01- Pre Coulon*

**CAS Project ID:** P2301228

**CAS Sample ID:** P2301228-001

**Test Code:** EPA TO-15

**Instrument ID:** HP5972/Tekmar AUTOCAN Elite

**Analyst:** Michelle Sakamoto

**Sampling Media:** Summa Canister

**Test Notes:**

**Container ID:** SC00243

**Date Collected:** 6/17/03

**Date Received:** 6/23/03

**Date Analyzed:** 7/2/03

**Volume(s) Analyzed:** 0.0020 Liter(s)

Pi 1 = 0.0

Pf 1 = 3.5

D.F. = 1.24

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	620	ND	130	
74-87-3	Chloromethane	ND	620	ND	300	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	620	ND	89	
75-01-4	Vinyl Chloride	ND	620	ND	240	
106-99-0	1,3-Butadiene	ND	620	ND	280	
74-83-9	Bromomethane	ND	620	ND	160	
75-00-3	Chloroethane	ND	620	ND	240	
64-17-5	Ethanol	ND	620	ND	330	
75-05-8	Acetonitrile	ND	620	ND	370	
107-02-8	Acrolein	ND	620	ND	270	
67-64-1	Acetone	ND	3,100	ND	1,300	
75-69-4	Trichlorofluoromethane	ND	620	ND	110	
67-63-0	Isopropyl Alcohol	ND	620	ND	250	
107-13-1	Acrylonitrile	ND	620	ND	290	
75-35-4	1,1-Dichloroethene	ND	620	ND	160	
75-09-2	Methylene chloride	ND	620	ND	180	
107-05-1	Allyl Chloride	ND	620	ND	200	
76-13-1	Trichlorotrifluoroethane	ND	620	ND	81	
75-15-0	Carbon Disulfide	ND	620	ND	200	
156-60-5	trans-1,2-Dichloroethene	ND	620	ND	160	
75-34-3	1,1-Dichloroethane	ND	620	ND	150	
1634-04-4	Methyl tert-Butyl Ether	ND	620	ND	170	
108-05-4	Vinyl Acetate	ND	620	ND	180	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

## RESULTS OF ANALYSIS

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Client: **Clayton Group Services**  
 Client Sample ID: **VPGAC01/061703**  
 Client Project ID: **Lockformer/65263**

CAS Project ID: P2301228  
 CAS Sample ID: P2301228-001

Test Code: EPA TO-15  
 Instrument ID: HP5972/Tekmar AUTOCAN Elite  
 Analyst: Michelle Sakamoto  
 Sampling Media: Summa Canister  
 Test Notes:  
 Container ID: SC00243

Date Collected: 6/17/03  
 Date Received: 6/23/03  
 Date Analyzed: 7/2/03  
 Volume(s) Analyzed: 0.0020 Liter(s)

Pi 1 = 0.0 Pf 1 = 3.5

D.F. = 1.24

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	620	ND	210	
156-59-2	cis-1,2-Dichloroethene	8,400	620	2,100	160	
110-54-3	n-Hexane	ND	620	ND	180	
67-66-3	Chloroform	ND	620	ND	130	
107-06-2	1,2-Dichloroethane	ND	620	ND	150	
71-55-6	1,1,1-Trichloroethane	ND	620	ND	110	
71-43-2	Benzene	ND	620	ND	190	
56-23-5	Carbon Tetrachloride	ND	620	ND	99	
78-87-5	1,2-Dichloropropane	ND	620	ND	130	
75-27-4	Bromodichloromethane	ND	620	ND	93	
79-01-6	Trichloroethene	50,000	620	9,200	120	
123-91-1	1,4-Dioxane	ND	620	ND	170	
106-89-8	Epichlorohydrin	ND	3,100	ND	820	*
10061-01-5	cis-1,3-Dichloropropene	ND	620	ND	140	
108-10-1	4-Methyl-2-pentanone	ND	620	ND	150	
10061-02-6	trans-1,3-Dichloropropene	ND	620	ND	140	
79-00-5	1,1,2-Trichloroethane	ND	620	ND	110	
108-88-3	Toluene	ND	620	ND	160	
591-78-6	2-Hexanone	ND	620	ND	150	
24-48-1	Dibromochloromethane	ND	620	ND	73	
106-93-4	1,2-Dibromoethane	ND	620	ND	81	
27-18-4	Tetrachloroethene	ND	620	ND	91	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

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\* = The continuing calibration verification (CCV) percent difference was outside of the laboratory's control limit for this compound.

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Verified By: \_\_\_\_\_

Date: \_\_\_\_\_

Client: Clayton Group Services  
 Client Sample ID: VPGAC01/061703  
 Client Project ID: Lockformer/65263

CAS Project ID: P2301228  
 CAS Sample ID: P2301228-001

Test Code: EPA TO-15  
 Instrument ID: HP5972/Tekmar AUTOCAN Elite  
 Analyst: Michelle Sakamoto  
 Sampling Media: Summa Canister  
 Test Notes:  
 Container ID: SC00243

Date Collected: 6/17/03  
 Date Received: 6/23/03  
 Date Analyzed: 7/2/03  
 Volume(s) Analyzed: 0.0020 Liter(s)

Pi 1 = 0.0

Pf 1 = 3.5

D.F. = 1.24

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	620	ND	130	
100-41-4	Ethylbenzene	ND	620	ND	140	
136777-61-2	<i>m,p</i> -Xylenes	ND	620	ND	140	
75-25-2	Bromoform	ND	620	ND	60	
100-42-5	Styrene	ND	620	ND	150	
95-47-6	<i>o</i> -Xylene	ND	620	ND	140	
111-84-2	<i>n</i> -Nonane	ND	620	ND	120	
79-34-5	1,1,2,2-Tetrachloroethane	ND	620	ND	90	
98-82-8	Cumene	ND	620	ND	130	
80-56-8	$\alpha$ -Pinene	ND	620	ND	110	
622-96-8	4-Ethyltoluene	ND	620	ND	130	
108-67-8	1,3,5-Trimethylbenzene	ND	620	ND	130	
95-63-6	1,2,4-Trimethylbenzene	ND	620	ND	130	
100-44-7	Benzyl Chloride	ND	620	ND	120	
541-73-1	1,3-Dichlorobenzene	ND	620	ND	100	
106-46-7	1,4-Dichlorobenzene	ND	620	ND	100	
95-50-1	1,2-Dichlorobenzene	ND	620	ND	100	
5989-27-5	d-Limonene	ND	620	ND	110	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	620	ND	64	
120-82-1	1,2,4-Trichlorobenzene	ND	620	ND	84	
91-20-3	Naphthalene	ND	620	ND	120	
37-68-3	Hexachlorobutadiene	ND	620	ND	58	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.****RESULTS OF ANALYSIS**

Page 1 of 1

**Client:** Clayton Group Services**Client Project ID:** Lockformer/65263**CAS Project ID:** P2301228**Methane****Test Code:** Modified EPA TO-3**Instrument ID:** HP5890A/FID #8**Analyst:** Wade Henton**Sampling Media:** Summa Canister(s)**Test Notes:****Date(s) Collected:** 6/17/03**Date Received:** 6/23/03**Date Analyzed:** 6/25/03**Volume(s) Analyzed:** 1.0 ml

Client Sample ID	CAS Sample ID	D.F.	Methane Concentration in ppmV		Data Qualifier
			Result	MRL	
VPGAC01/061703	P2301228-001	1.24	41	0.62	
VPGAC02/061703	P2301228-002	1.32	41	0.66	
VPGAC03/061703	P2301228-003	1.28	40	0.64	
Method Blank	P030625-MB	1.00	ND	0.50	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.****RESULTS OF ANALYSIS**

Page 1 of 1

**Client:** Clayton Group Services  
**Client Project ID:** Lockformer/65263

**CAS Project ID:** P2301171**Methane**

**Test Code:** Modified EPA TO-3  
**Instrument ID:** HP5890A/FID #8  
**Analyst:** Regan Lau  
**Sampling Media:** Summa Canister(s)  
**Test Notes:**

**Date(s) Collected:** 6/12/03  
**Date Received:** 6/17/03  
**Date Analyzed:** 6/23/03  
**Volume(s) Analyzed:** 1.0 ml

Client Sample ID	CAS Sample ID	D.F.	Methane Concentration in ppmV		Data Qualifier
			Result	MRL	
VPGAC01/061203	P2301171-001	1.21	33	0.61	
VPGAC02/061203	P2301171-002	1.24	34	0.62	
VPGAC03/061203	P2301171-003	1.26	33	0.63	
Method Blank	P030623-MB	1.00	ND	0.50	

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Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

# COLUMBIA ANALYTICAL SERVICES, INC.

## RESULTS OF ANALYSIS

Page 1 of 3

**Client:** Clayton Group Services  
**Client Sample ID:** VPGAC01/061203  
**Client Project ID:** Lockformer/65263

**CAS Project ID:** P2301171  
**CAS Sample ID:** P2301171-001

**Test Code:** EPA TO-15  
**Instrument ID:** HP5973/Tekmar AUTOCAN Elite  
**Analyst:** Svetlana Walsh  
**Sampling Media:** Summa Canister  
**Test Notes:**  
**Container ID:** SC00062

**Date Collected:** 6/12/03  
**Date Received:** 6/17/03  
**Date Analyzed:** 6/25/03  
**Volume(s) Analyzed:** 0.0020 Liter(s)

Pi 1 = 0.3      Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	610	ND	120	
74-87-3	Chloromethane	ND	610	ND	290	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	610	ND	87	
75-01-4	Vinyl Chloride	ND	610	ND	240	
106-99-0	1,3-Butadiene	ND	610	ND	270	
74-83-9	Bromomethane	ND	610	ND	160	
75-00-3	Chloroethane	ND	610	ND	230	
64-17-5	Ethanol	ND	610	ND	320	
75-05-8	Acetonitrile	ND	610	ND	360	
107-02-8	Acrolein	ND	610	ND	260	
67-64-1	Acetone	ND	3,000	ND	1,300	
75-69-4	Trichlorofluoromethane	ND	610	ND	110	
67-63-0	Isopropyl Alcohol	ND	610	ND	250	
107-13-1	Acrylonitrile	ND	610	ND	280	
75-35-4	1,1-Dichloroethene	ND	610	ND	150	
75-09-2	Methylene chloride	ND	610	ND	170	
107-05-1	Allyl Chloride	ND	610	ND	190	
76-13-1	Trichlorotrifluoroethane	ND	610	ND	79	
75-15-0	Carbon Disulfide	ND	610	ND	190	
156-60-5	trans-1,2-Dichloroethene	ND	610	ND	150	
75-34-3	1,1-Dichloroethane	ND	610	ND	150	
1634-04-4	Methyl tert-Butyl Ether	ND	610	ND	170	
108-05-4	Vinyl Acetate	ND	610	ND	170	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

COLUMBIA ANALYTICAL SERVICES, INC.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

## RESULTS OF ANALYSIS

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Client: Clayton Group Services  
 Client Sample ID: VPGAC01/061203  
 Client Project ID: Lockformer/65263

CAS Project ID: P2301171  
 CAS Sample ID: P2301171-001

Test Code: EPA TO-15  
 Instrument ID: HP5973/Tekmar AUTOCAN Elite  
 Analyst: Svetlana Walsh  
 Sampling Media: Summa Canister  
 Test Notes:  
 Container ID: SC00062

Date Collected: 6/12/03  
 Date Received: 6/17/03  
 Date Analyzed: 6/25/03  
 Volume(s) Analyzed: 0.0020 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	610	ND	210	
156-59-2	cis-1,2-Dichloroethene	7,800	610	2,000	150	
110-54-3	n-Hexane	ND	610	ND	170	
67-66-3	Chloroform	ND	610	ND	120	
107-06-2	1,2-Dichloroethane	ND	610	ND	150	
71-55-6	1,1,1-Trichloroethane	ND	610	ND	110	
71-43-2	Benzene	ND	610	ND	190	
56-23-5	Carbon Tetrachloride	ND	610	ND	96	
78-87-5	1,2-Dichloropropane	ND	610	ND	130	
75-27-4	Bromodichloromethane	ND	610	ND	90	
79-01-6	Trichloroethene	51,000	610	9,500	110	
23-91-1	1,4-Dioxane	ND	610	ND	170	
06-89-8	Epichlorohydrin	ND	1,200	ND	320	*
0061-01-5	cis-1,3-Dichloropropene	ND	610	ND	130	
08-10-1	4-Methyl-2-pentanone	ND	610	ND	150	
10061-02-6	trans-1,3-Dichloropropene	ND	610	ND	130	
79-00-5	1,1,2-Trichloroethane	ND	610	ND	110	
108-88-3	Toluene	ND	610	ND	160	
591-78-6	2-Hexanone	ND	610	ND	150	
124-48-1	Dibromochloromethane	ND	610	ND	71	
106-93-4	1,2-Dibromoethane	ND	610	ND	79	
127-18-4	Tetrachloroethene	670	610	99	89	

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\* = The continuing calibration verification (CCV) percent difference was outside of the laboratory's control limit for this compound.

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Verified By: \_\_\_\_\_

Date: \_\_\_\_\_



**Client:** Clayton Group Services**Client Sample ID:** VPGAC01/061203**Client Project ID:** Lockformer/65263**CAS Project ID:** P2301171**CAS Sample ID:** P2301171-001**Tes: Code:** EPA TO-15**Instrument ID:** HP5973/Tekmar AUTOCAN Elite**Analyst:** Svetlana Walsh**Sampling Media:** Summa Canister**Tes: Notes:****Container ID:** SC00062**Date Collected:** 6/12/03**Date Received:** 6/17/03**Date Analyzed:** 6/25/03**Volume(s) Analyzed:** 0.0020 Liter(s)

Pi 1 = 0.3

Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	610	ND	130	
100-41-4	Ethylbenzene	ND	610	ND	140	
136777-61-2	<i>m,p</i> -Xylenes	ND	610	ND	140	
75-25-2	Bromoform	ND	610	ND	59	
100-42-5	Styrene	ND	610	ND	140	
95-47-6	<i>o</i> -Xylene	ND	610	ND	140	
111-84-2	<i>n</i> -Nonane	ND	610	ND	120	
79-34-5	1,1,2,2-Tetrachloroethane	ND	610	ND	88	
93-82-8	Cumene	ND	610	ND	120	
83-56-8	$\alpha$ -Pinene	ND	610	ND	110	
622-96-8	4-Ethyltoluene	ND	610	ND	120	
108-67-8	1,3,5-Trimethylbenzene	ND	610	ND	120	
95-63-6	1,2,4-Trimethylbenzene	ND	610	ND	120	
100-44-7	Benzyl Chloride	ND	610	ND	120	
541-73-1	1,3-Dichlorobenzene	ND	610	ND	100	
106-46-7	1,4-Dichlorobenzene	ND	610	ND	100	
95-50-1	1,2-Dichlorobenzene	ND	610	ND	100	
5989-27-5	d-Limonene	ND	610	ND	110	
96-12-8	1,2-Dibromo-3-Chloropropane	ND	610	ND	63	
120-82-1	1,2,4-Trichlorobenzene	ND	610	ND	82	
91-20-3	Naphthalene	ND	610	ND	120	
87-68-3	Hexachlorobutadiene	ND	610	ND	57	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

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Verified By: \_\_\_\_\_ Date: \_\_\_\_\_